

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (original) An optical reading device comprising a housing for receiving a test plate on which, according to a fixed pattern, test substances can be provided, which reading device further comprises optical conversion elements for converting light coming from a test substance into a measuring signal which corresponds to a predetermined parameter of the test substance, characterized in that the optical conversion elements comprise light-receiving areas configured in a pattern which corresponds to the pattern of the test plate.

2. (currently amended) An optical reading device according to claim 1, characterized in that the housing comprises a base plate, in which the optical conversion elements have been received in a pattern which corresponds to the pattern of the test plate, which base plate has a shape such that [[it]] the base plate can be coupled to a test plate for providing a direct optical contact between the optical conversion elements and test substances on the test plate.

3. (previously presented) An optical reading device according to claim 1, characterized in that the device comprises coupling means for coupling the test plate on the base plate.

4. (previously presented) An optical reading device according to claim 1, characterized in that the number of conversion elements is equal to the number of test positions of a test plate to be read.

5. (previously presented) An optical reading device according to claim 1, characterized in that the optically sensitive elements are designed for registering light coming from a chemo-optical substance, for measuring a degree of concentration of a substance to which the chemo-optical substance is sensitive.

6. (original) An optical reading device according to claim 5, characterized in that the optical elements register a half life of fluorescence light.

7. (previously presented) An optical reading device according to claim 1, characterized in that it has the size of a standard microtitre plate, so that the reading device can be included in an incubator and be read.

8. (previously presented) An optical reading device according to claim 1, characterized in that the reading device

comprises a light source for emitting excitation light, which light source emits light in a direction away from the light-receiving areas.

9. (previously presented) A method for testing test substances with an optical reader according to claim 1, characterized in that the method comprises the steps of providing the test substances in a microtitre plate, coupling the reader to the microtitre plate and inserting the reader into an incubator, while the measuring signals coming from the reader are stored in a memory of the reader and/or are outputted to a central processing unit.

10. (previously presented) A microtitre plate, characterized in that the microtitre plate is provided with coupling means for coupling the plate to an optical reader according to claim 1.

11. (original) A microtitre plate according to claim 10, characterized in that the microtitre plate is provided with a chemo-optical coating.

12. (original) A microtitre plate according to claim 11, characterized in that the coating is oxygen sensitive and that the microtitre plate comprises a closure for closing off the test substances in a gas-tight manner.

13. (new) An optical reading device, comprising:
a test plate having plural test sites in a fixed pattern; and

a base plate that removably receives said test plate in a fixed positional relationship, said base plate comprising plural optical conversion elements in a fixed pattern that corresponds to the fixed pattern of said plural test sites, wherein each of said optical conversion elements receives light from a respective different one of said test sites when said base plate is in the fixed positional relationship with said test plate.

14. (new) An optical reading device, comprising:
a test plate having a first plurality of test sites in a first fixed pattern; and

a base plate that removably receives said test plate in a fixed positional relationship, said base plate comprising the first plurality of optical conversion elements in a second fixed pattern that is the same as the first fixed pattern, wherein each of said test sites is in registration with a respective different one of said optical conversion elements when said base plate is in the fixed positional relationship with said test plate, and wherein said optical conversion elements convert light received from the respective different one of said optical conversion elements into a signal.